**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| In re Application of: | ) | Examiner: BAGGOT, Brendan O. |
| CHAPPELL, J. et al. | ) | Group Art Unit: 1638 |
| Serial No.: 10/633,590 | ) | Docket No.: 8064-006-US |
| Filed: August 5, 2003 | ) | Date Mailed: March 28, 2006 |
| For: METHODS FOR SPLICING PLANT GENES | ) | |

REPLY TO RESTRICTION REQUIREMENT

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants reply to the Restriction Requirement mailed January 12, 2006 as follows:

I. THE RESTRICTION REQUIREMENT

Restriction was required under 35 U.S.C. 121. The present application was stated to contain two distinct and unrelated inventions. Accordingly, under 37 C.F.R.§1.143 the Applicant is required to elect a single invention to which the claims must be restricted.

Group I is claims 1-8, drawn to a method of making intron-less cDNA using plant DNA, classified in class 435, subclass 468.

Group II is claims 9-19, drawn to a method of producing a plant gene, classified in class 435, subclass 419.

Inventions of Groups I and II were stated to be distinct from each other for the following reasons. Inventions listed as Group I and II were stated to have different modes of operation, different functions, or different effects. MPEP§806.04, MPEP 808.01. Specifically, inventions of Groups I and II were stated to use different reagents, have different steps, and produce different results.

II. REPLY TO THE RESTRICTION REQUIREMENT

Applicants reply to the Restriction Requirement as follows:

Applicants elect the invention of Group I, claims 1-8, drawn to a method of making intron-less cDNA using plant DNA, with traverse.

The Restriction Requirement is traversed on the following grounds:

Firstly, the Examiner has not met the burden for demonstrating the necessity for restriction. MPEP§803 requires for restriction both: (1) that the inventions are independent or distinct as claimed; and (2) that there would exist a "serious burden" on the Examiner if all of the claims were examined in one application. These requirements have not been met.

In fact, the subject matter of Groups I and II is sufficiently related to avoid restriction, because there would be no "serious burden" on the Examiner if all of the claims were examined together in one application.

The essence of the invention disclosed in the present application is the discovery of a novel method of producing intron-less plant cDNA that does not require excessive manipulation of nucleic acids or knowledge of tissue specific expression of the gene of interest. This discovery underlies the subject matter of the claims of all groups, such that

claims of Group I and II simply represent different embodiments of a single invention rather than two independent and distinct inventions.

Moreover, the subject matter of the inventions disclosed in Group I and II is sufficiently interrelated so that no serious burden on the Examiner would result if all of the claims were examined on the merits. This is because the art involved, if any relevant art exists, largely overlaps. The substantial overlap of the potential art involved, assuming again that there is any relevant art, is further evident from the fact that methods of both groups are effectively classified in class 435.

The methods of Groups I and II are related processes. In general, in the relevant art, related processes are described in the same reference, which further diminishes the likelihood of a serious burden on the Examiner if claims of Groups I and II were examined together.

MPEP§806.05(j) states that related process inventions are distinct if the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP§802.01. The burden is on the Examiner to provide an example to support the determination that the inventions are distinct. MPEP§806.05 (j).

In the present case, Examiner has not met the burden of demonstrating that inventions of Groups I and II are distinct. Specifically, the Examiner failed to provide any example in support of restriction other than briefly state that inventions of Group I and II use different reagents, have different steps and produce different results.

Applicant respectfully disagrees with Examiner's observation that inventions of Group I and II are unrelated. In fact, a method of producing a recombinant plant gene listed in Group II uses similar reagents, has similar steps and produces similar results as the method of making intron-less cDNA using plant DNA listed in Group I.

Specifically, the method of Group I comprises the steps of (i) transforming *Agrobacterium* with a vector comprising a plant gene of interest operably linked to a promoter; (ii) infiltrating a leaf of a plant with the transformed *Agrobacterium* of (i) for a period of time to provide transient expression of the gene of interest; (iii) isolating total RNA from the infiltrated leaf; (iv) performing RT-PCR using the total RNA as template; and (v) isolating intron-less plant cDNA corresponding to the gene of interest from the products of RT-PCR.

The method of Group II comprises the steps of (i) transforming *Agrobacterium* with a vector comprising a plant gene of interest operably linked to a promoter; (ii) infiltrating a leaf of a plant with the transformed *Agrobacterium* of (i) for a period of time to provide transient expression of the gene of interest; (iii) isolating total RNA from the infiltrated leaf; (iv) performing RT-PCR using the total RNA as template; (v) isolating intron-less plant cDNA corresponding to the gene of interest from the products of RT-PCR; and (vi) transforming bacteria or yeast cells with the intron-less plant cDNA and expressing the cDNA in the bacteria or yeast.

Examiner is respectfully pointed to the fact that inventions of Groups I and II share four out of five steps involved. Moreover, as shown in the provided examples of the present specification, inventions of Groups I and II, while patentably distinct, use similar steps, similar reagents, and produce sufficiently similar and related results to render the restriction requirement unnecessary.

Applicant does not traverse the restriction requirement on grounds of lack of patentable distinctness. Rather, Applicant traverses the restriction requirement on the grounds that the inventions of Groups I and II are sufficiently related that restriction is not properly required, despite the possible existence of patentable distinctness.

III. CONCLUSION

In light of the above remarks, the Examiner is respectfully requested to withdraw the Restriction Requirement and allow the inventions of Groups I and II to be examined together on the merits.

The deadline for response to the Restriction Requirement has been extended until April 12, 2006 by the filing of a two-month Request for Extension of Time Under 37 C.F.R.§1.136(a) together with this response. Therefore, this response is being filed in a timely manner.

If any issues remain, the Examiner is respectfully requested to telephone the undersigned at (858) 200-0587.

Respectfully submitted,

Date: 3/28/06

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